

ELEMENTS OF A REGULATION

April 2nd, 2020

Berlin Forum for Supporting the 2020 GGE on LAWS



Starting Point

- Human element (i.e. control), not technical definition of LAWS

Core

- Abide by IHL – protect humans from arbitrary decisions (legal, ethical)

Subject

- Process of use (design and life cycle as enablers)

Granularity

- Requirements: control by design & in use
- Time: life cycle & attack
- Operational context: quite abstract, quantitative indicators?

Bonus

- Verification



Starting
Point

Human element (i.e. control),
not technical definition of LAWS

1. Control as a process not a singular event
2. Control does not necessarily equal direct manipulation
3. Control is context-dependent
4. Autonomous functions rather than autonomy – to be considered along the steps of the targeting cycle
5. Apply a functional, technology agnostic definition of LAWS

Autonomous weapon system: “Any weapon system with autonomy in its **critical functions**—that is, a weapon system that can **select** (search for, detect, identify, track or select) and **attack** (use force against, neutralize, damage or destroy) targets **without human intervention.**” – International Committee of the Red Cross



Core

- Abide by IHL – protect humans from arbitrary decisions (legal, ethical)

- Legal accountability (cf. Guiding Principle d), predictability
- Ethical considerations, e.g. moral agency to keep human dignity
- Role of operational and security dimension?

Subject

- Process of use (design and life cycle as enablers)

Situational Understanding

Intervention

Control by Design
(Technical Control)

Ability to monitor information about environment and system

Modes of operation that allow human intervention and require them in specific steps of the targeting cycle

Control in Use
(Operational Control)

Appropriate monitoring of the system and the operational environment

Authority and accountability of human operators, teammates and commanders;
abide by IHL



Granularity

- Requirements: control by design & in use
- Time: life cycle & attack
- Operational context: quite abstract, quantitative indicators?

- Keep requirements rather abstract
- Use of force = targeting process: Does not exclude life cycle, but final human decision and effect should be as close together as possible to abide by principle of precaution.
 - Definition of attack?
- Operational context: Quantifiable formula? No, but discussion of relevant indicators
 - Additional document, e.g. best practices



Bonus

- Verification

- Focus on the human-machine relation
 - See also Gubrud/Altmann 2013
- Access points in various stages of the 'life cycle': design, preparation, during operation, after use
- Main challenges: qualitative, software, adapt to adequate level of human control in specific context
- Actors: treaty organization?

Legally binding document,
e.g. CCW protocol

Starting Point

- Human element (i.e. control), not technical definition of LAWS

Core

- Abide by IHL – protect humans from arbitrary decisions (legal, ethical)
- Also: operational and security dimension?

Subject

- Process of use (design and life cycle as enablers)

Granularity

- Requirements: control by design & in use
- Time: life cycle & attack
- Operational context: quite abstract, quantitative indicators?

Additional document,
e.g. best practices

Bonus

- Verification



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